

## FOCUS AREA G: EDUCATION AND TRAINING

The Department of Public Health (MDPH) has developed a plan for meeting the critical capacity in Focus Areas G that will strengthen statewide as well as regional and local public health infrastructure through assessment, training and education. This plan will allocate at least 60% of the funding and resources directly or indirectly to the regional and local level. The actual funding level may be higher than 60% if planned regional collaborations are successfully implemented through the establishment of regional consortia. In collaboration with local public health agencies, the Department proposes to provide funding and resources necessary to facilitate the establishment of collaborative regional structures which include local health agencies which is described in greater detail in Focus Area A.

***CRITICAL CAPACITY:*** *to ensure the delivery of appropriate education and training to key public health professionals, infectious disease specialists, emergency department personnel, and other healthcare providers in preparedness for and response to bioterrorism, other infectious disease outbreaks, and other public health threats and emergencies, either directly or through the use of existing curricula and other sources, including schools of public health and medicine, academic health centers, CDC training networks and other providers.*

### **1. Prepare a timeline to assess training needs—with special emphasis on emergency department personnel, infectious disease specialists, public health staff, and other healthcare providers. (Critical Benchmark #14)**

#### **Proposed Activities:**

- ◆ To prepare a timeline to assess training needs— with special emphasis on emergency department personnel, infectious disease specialists, public health staff, and other healthcare providers—the MA Department of Public Health (MDPH) will collaborate with many professional public health organizations, including but not limited to the MA Health Officers Association (MHOA), MA Association of Public Health Nurses (MAPHN), MA Environmental Health Association (MEHA), MA Association of Health Boards (MAHB), MA Public Health Association (MPHA), MA Medical Society (MMS), MA Institute for Local Public Health, MA Hospital Association (MHA) other representatives from local health departments, veterinarians, schools of public health and other professional stakeholders. A statewide education and training advisory committee will be established with a representative from each of the above to assist the MDPH in the planning and coordination of a needs assessment and subsequent development of training. The advisory committee will serve as a clearinghouse to ensure full representation and inclusion of local and community partners.

#### **Timeline and Evaluation:**

- ◆ By 7/1/02, the statewide training and education advisory committee will convene.
- ◆ By 9/1/02 a timeline for assessing training needs will be developed.

### **2. Assess the existing capacity to conduct training, needs assessment and planning for public health and private professionals, and to provide access to training in bioterrorism, other infectious disease outbreaks, and other public health threats and emergencies. If necessary, make improvements during this budget cycle.**

#### **Progress To Date:**

- ◆ During the summer and fall of 2000, the DOJ/CDC Public Health Assessment for Emergency Preparedness was conducted with approximately 100 local health departments representing the largest cities and towns in MA, and a sample of small towns. Also participating in the survey were representatives from fire departments, emergency management, emergency medical services, police and hospital emergency departments. The data concerning professional training needs obtained from this survey, along with anecdotal information obtained from various advisory committees, working groups, and professional organizations, has been used as a guide to the training needs of professional groups in MA. Generally, the consensus has been a need for increased and regular training which is specific to the needs of each professional group, and which is conducted by a respected authority. Unfortunately, the training data obtained in this assessment are limited. It does not include the entire state and it fails to address the specific training needs of each professional group.

#### **Proposed Activities:**

- ◆ In order to assess more comprehensively the existing capacity to conduct training, needs assessment and planning, the MDPH proposes to conduct qualitative formative research through focus group testing of various responder, provider groups, local health departments and local public health agencies. It is perceived that access to trainings has been extremely variable and that some responders are quite comfortable in their knowledge of

BT response, while others continue to have huge gaps in knowledge. Through formative research, we will determine the actual training needs of the following groups: hospital emergency room staff, infectious disease specialists, infection control practitioners, non-emergency healthcare providers (e.g., community providers), large animal veterinarians and local public health personnel and board members. The trainings that will be developed in response to the formative research will include BT-related mental health issues (and substance abuse) to assist with the needs of healthcare providers, local health departments, first responders and local public health agencies. Additionally, we plan to explore what types of educational materials and training programs will be useful; obstacles to attending training (e.g., distance, time of day, cost, etc); what type of trainers each group currently has available and what methodology of training best suits their needs (on-line, in-person, self-administered, etc.) and to identify current training modalities and effectiveness. MDPH recognizes the need to address the educational needs of occupational health providers and private providers and will involve appropriate partners in the needs assessment and curriculum development. This activity will be conducted with the input and collaboration of the statewide education and training advisory committee, and the HRSA-funded hospital preparedness program.

#### **Timeline and Evaluation:**

- ◆ By 09/30/02, focus groups will be completed and a report will be presented to MDPH and the advisory committee.

### **3. Develop an ongoing plan for meeting training needs through multiple sources.**

#### **Progress to Date:**

- ◆ MDPH presently provides many training opportunities for public health, clinical and other healthcare professionals. Training opportunities address many issues including but not limited to the epidemiology, surveillance, reporting and control of infectious diseases including BT agents. Satellite and web-based training have been offered in addition to grand rounds, table tops, day-long workshops and even extended training programs for specific professional groups. However, there is no set schedule of training opportunities, nor a central clearinghouse of training information.
- ◆ See information below (#4 and #5) concerning satellite broadcasts and the six regional "Preparing for Infectious Disease Emergencies" training programs offered during the fall of 2000.
- ◆ Numerous manuals have been developed to increase local health capacity. A *Guide to Surveillance and Reporting*, a comprehensive manual for local health departments on how to conduct infectious disease surveillance, reporting and control, was developed and disseminated in 2001 to all local health departments and infection control offices at MA hospitals. A daylong training program based on the *Guide to Surveillance and Reporting* was implemented in the fall of 2001, as a collaboration between the MDPH Division of Epidemiology and Immunization, MHOA and MAPHN. The objectives of the program were to: sharpen knowledge of principles of infectious disease surveillance, reporting and control and describe the local health department responsibility in the state's infectious disease surveillance program. Seven trainings were held around the state and included 239 participants, mainly from local health departments. The *Guide* was also posted on the MDPH website to be accessible to other public health professionals and health care providers. Other pertinent manuals include: *The Comprehensive School Health Manual*, *Handbook for Local Public Health Nurses*, and *Handbook for Local Public Health*. All have relevant infectious disease sections and are used by local public health.
- ◆ A 7-day *Epi-In-Action* training course, developed by Emory University, was offered to local health department personnel in the spring of 2001. Numerous public health nurses and health officials took advantage of the training, which highlighted epidemiological methods, current topics, activities to foster local/state collaboration, statistical computer skills and program evaluation.
- ◆ Local health departments and other healthcare and public health professionals use the MDPH MassCHIP system, developed to assist communities and professionals in health planning. It is available through libraries and the MDPH Prevention Centers. Local health has received training, via the statewide MDPH Prevention Centers, regarding assessment techniques and use of data via MassCHIP.
- ◆ Many local health departments are involved in the Community Health Network Areas (CHNAs) that provide a statewide community framework to create partnerships between service providers, local health departments, consumers and the community-at large. This initiative began in 1992 to provide continuous improvement of health status within our own communities by establishing active collaborations with appropriate stakeholders

- ◆ During the fall of 2001, MDPH provided training materials, including texts, fact sheets, journal articles, health alerts, and resource lists, to all hospital emergency rooms physicians, infectious disease doctors and infection control practitioners in MA. Feedback from approximately 25 recipients indicated a need for BT fact sheets for their patients and table top exercises to improve their response to emergencies. A limitation to this mailing was that a formal evaluation of the usefulness of the packets was not conducted. Another limitation was that we did not address the need for disseminating new or updated hard copy materials.
- ◆ During March 2002 the training calendar of MA Emergency Management Agency (MEMA) was mailed to 351 local health departments with a letter encouraging health department participation in MEMA trainings like Incident Command System, Emergency Management and Terrorism Awareness.
- ◆ Tabletop exercises on infectious disease emergencies, including pandemic influenza, have been included on a state level exercise, a department and division level exercise. A tabletop exercise planned for the Bureau of Communicable Disease Control was postponed due to the 9/11 event and subsequent anthrax issues.

### **Proposed Activities:**

Although most training and educational activities conducted by the MDPH have been offered statewide, it is acknowledged that additional avenues need to be explored to train individuals with responsibility during a BT incident adequately and efficiently. It is also important to consider that with a constantly changing workforce, trainings need to be repeated regularly in order to educate/train new employees. The statewide advisory committee will assist the MDPH in the planning and coordination of trainings throughout the state.

As part of a comprehensive plan, the MDPH proposes the following to address training needs:

- ◆ A one-day training/orientation, held 2-3 times a year at the MDPH state laboratory and other sites around the state, for new local health personnel (focus on public health nurses). Instruction will be provided on how to use the *Guide to Surveillance and Reporting*, the importance of reporting, how to submit urgent infectious disease reports to the MDPH on a 24/7 basis, how to implement control measures (specifically contact tracking skills).
- ◆ To continue to increase the local health department capacity to conduct infectious disease surveillance, reporting and control by: 1) implementing the statewide *Guide to Surveillance and Reporting* training program on an annual basis and to incorporate more information on BT agents and emergency situations, 2) developing a more in-depth/advanced educational and training module for local public health professionals, modeled after Emory University's *Epi-In-Action* course, and 3) use other manuals described in #2 as the basis for local health training. The course will be more targeted to public health professionals in local jurisdictions. Efforts will be made to provide both trainings (and others) at no cost to the participants, and possible hold the trainings at night or weekends to maximize attendance. It is recognized that elected/appointed board members will have different, although sometimes overlapping, training needs, and this will be addressed more comprehensively, e.g., through the MAHB Certification For Boards of Health Program.
- ◆ To develop the capacity to conduct training throughout the state on a regular basis, BT trainers responsible for regions of the state (e.g., the proposed CRLS or other models of a collaborative regional structure) will be trained to conduct trainings within each region and will act as the contact point for training within that region. A train-the-trainer program will also be developed within each region. Collaborations and coordination may be established with the new MA Institute for Health Communities and Local Public Health (whose mission is to promote partnership among regional and local public health leaders).
- ◆ To provide a mechanism to fund approximately 10 community-based regional BT preparedness training projects, e.g., through the new MA Institute for Healthy Communities and Local Public Health and/or Regional Centers for Healthy Communities.
- ◆ The development of web-based versions of training programs listed above and/or establish a web-based educational resource guide. A potential collaboration is with the MAHB. Its Certification Program For Boards of Health will continue to deliver annual training and certification to local health departments through the use of simulation and inter-active computer based training technologies, and creation of virtual environments to enhance the learning process.
- ◆ To work in conjunction with HAN staff (see Focus Area E) to train users of HAN computer technology.
- ◆ To potentially collaborate with the New England Alliance for Public Health Workforce Development to promote and publicize training courses. The Alliance represents schools of public health from Boston University, Tufts University, UMass, Yale, and Harvard University. One of their projects is a public health training calendar that is intended to fill gaps in public health workforce training and to make training more accessible to the currently employed workforce throughout New England.

- ◆ To provide conflict resolution preparedness training through collaborations with area academic centers (Harvard School of Public Health, Program for Health Care Negotiation and Conflict Resolution, UMass, MIT). Harvard is currently prepared to provide state authorities with a range of options for conflict resolution preparedness. These training options vary by intensity of the learning and preparation process, the number of people provided with conflict resolution training, and the depth of analysis of potential conflict and decision-making procedures.
- ◆ To work with the MA Division of Food and Drugs, MA Department of Food and Agriculture, local health departments, veterinary associations and veterinarians to identify and provide training resources in two areas: to conduct risk and vulnerability assessment of the food supply and to identify and properly report zoonotic diseases and other sentinel events related to livestock and other farm animals.
- ◆ To link with Focus Areas A, B, C, E and F to plan for a coordinated statewide multi-site drill in conjunction with MEMA, MMS and MHA.
- ◆ It is recognized that trainings need to connect to mental health/substance abuse issues that occur after a crisis.

#### **Timeline and Evaluation:**

- ◆ An initial one-day orientation program for local health department staff will take place during July 2002.
- ◆ During fall 2002, a 2nd statewide *Guide to Surveillance and Reporting* training program will be implemented.
- ◆ By the end of August 2002, the core curriculum for the *Epi-In-Action* training program will be developed, key trainers identified, and dates/location established for the first workshop.
- ◆ By the end of October 2002, three regional BT trainers will be hired to address training needs in western, central, and southeastern MA.
- ◆ By spring 2003, approximately 10 community-based regional BT preparedness training projects will be funded to address training needs identified in the needs assessment.
- ◆ By 11/20/02, an ongoing plan for meeting training needs through multiple sources will be completed.
- ◆ By 12/31/02 an instructor training program (train-the-trainer) will be developed and piloted.

#### **4. Develop the capacity at the state and/or local public health agency to facilitate or provide education and training sessions and services on bioterrorism, other infectious disease outbreaks, and other public health threats and emergencies. This should include a trained distance learning coordinator and access to distance learning capabilities in the form of an identified location to receive satellite broadcasts and a higher level of internet connectivity, video, and imaging capacity to view live feeds.**

#### **Progress To Date:**

Since 1990 the Division of Epidemiology and Immunization has worked in partnership with MA Community Colleges to provide satellite downlink services in 15 locations throughout the state. Trainings have included: Intro to Emergency Preparedness, Intro to Terrorism, Incident Command System, Medical Response to Chemical Terrorism, Communication Skills for Public Health Professionals, West Nile Virus, Operation TopOff, and Weapons of Mass Destruction. This system works best when a program can be scheduled months to weeks in advance. It is limited as far as emergency broadcasts are concerned. A MDPH Distance Learning Coordinator was hired in 2000.

#### **Proposed Activities:**

- ◆ To continue to provide satellite courses at MDPH and other sites through the MA Community Colleges.
- ◆ To develop a master list of all agencies with satellite download capability (e.g., hospitals, public TV channels) and potentially to expand our collaborations to increase the accessibility of pertinent satellite broadcasts.
- ◆ To explore the use of video-conferencing equipment and web-based training opportunities.
- ◆ To work in conjunction with the HAN to publicize distance learning opportunities.

#### **Timeline and Evaluation:**

- ◆ By 09/01/02, a master list of potential satellite downlink sites will be established, and local health departments will be encouraged to form local partnerships with downlink sites for pertinent distance learning programs.
- ◆ By 09/01/02, the continuing education trainings will have been developed and planning will be completed.
- ◆ By 01/31/03, the regional trainers will have been trained.

#### **5. Develop formal partnerships with schools of public health and medicine, other academic institutions, and other organizations for the provision of education and training.**

**Progress To Date:**

Collaborations have been established with various professional partners and local health organizations. For example, MHOA and MAPHN co-sponsored the *Guide to Surveillance and Reporting* training program held in the fall of 2001. The Division of Epidemiology and Immunization collaborated with MMS on a handwashing campaign. The Boston Public Health Commission has developed and implemented a "Grand Rounds" program on BT agents for emergency department personnel, with technical assistance and support from MDPH and CDC. MDPH has also collaborated with local health departments on various projects. For example, a large number of local health departments were involved in giving feedback on the development of the MDPH *Foodborne Illness Investigation and Control Reference Manual*, the MDPH *Guide to Surveillance and Reporting*, the MDPH *Comprehensive School Health Manual*, and the *Handbook for Local Public Health Nurses*. Local health has built relationships with MDPH through the Prevention Centers, whose mission is to promote and support community-based prevention to create and sustain healthy communities.

Other collaborative efforts around bioterrorism training have included the development (in conjunction with the Department of Fire Services, Management Sciences for Health, and David Ozonoff, MD, MPH from the Boston University School of Public Health) of a daylong educational module entitled "Preparing for Local Infectious Disease Emergencies including Bioterrorism." The training was directed towards local public health officers, police, fire, and local hospital personnel and was offered to all 351 towns in the commonwealth. Trainings were conducted in 6 locations throughout the states with over 300 participants representing 76 towns. Each training consisted of lectures, tabletop exercises, and directed activities to enhance collaboration of attendees in adjacent jurisdictions. Over 60% of those completing evaluations rated the overall experience as "excellent." A videotape of the training has been made available to any local health departments who were not able to attend the live training.

**Proposed Activities:**

- ◆ MDPH will continue to collaborate with MHOA, MAPHN, MEMA, Department of Fire Services, and other organizations to develop training for local responders, healthcare providers and local health departments.
- ◆ MDPH will enhance partnerships by developing a formal paid public health internship program with the Schools of Public Health and Schools of Nursing. The internship will be open to all schools on a competitive basis. Interns will be placed at MDPH and local health departments.
- ◆ MDPH, Bureau of Substance Abuse will collaborate with MA Department of Mental Health to provide training on the mental health and substance abuse impact of emergencies.
- ◆ As described previously, approximately 10 regional BT education and training projects will be funded, and three regional trainers will be hired.
- ◆ To continue to build local health capacity and provide training through a community-based partnership that may be formalized through a competitive procurement process. The partnership will provide a unified voice for local health and to provide a mechanism for development and implementation of training.
- ◆ To continue to work with other Bureaus/Divisions within MDPH, e.g., the School Health Unit to address training needs of school nurses who may be instrumental in identifying and monitoring BT signs/symptoms.
- ◆ To continue to work with local public health nursing to do assessment of training needs at the local level. To explore, in collaboration with MAPHN, the possibility of developing a public health nursing institute which will train or update public health nurses on standard infection control, immunization, and infectious disease contact tracking skills to support BT detection and response.

**Timeline and Evaluation:**

- ◆ The education and training advisory committee mentioned previously will provide the mechanism for ongoing formal partnering with key agencies. The initial meeting will occur by 07/01/02. This advisory group will meet at least quarterly to discuss education and training needs and services.
- ◆ During the fall of 2002 regional trainers will be hired and regional BT education initiatives will be identified and funded.
- ◆ By 09/01/02, a pilot internship program will be in place.

**6. Ensure educational expertise and review of training program content and curricula by:**

- a) developing/providing training for a speaker's bureau; b) providing training in public health skills to program staff; and c) supporting costs (travel, course fees) for training critical program staff using existing courses.

**Progress To Date:**

- ◆ There is currently no formal speaker's bureau available through MDPH. However, MDPH staff are available to present information on bioterrorism to hospital personnel, first responders, community organizations, public health organizations, local health departments and schools. The MA Infectious Diseases Society and the Boston Public Health Commission have already developed a speaker's bureau on bioterrorism.
- ◆ The MDPH currently provides funding for the Boston Public Health Commission to develop a bioterrorism curriculum for emergency department personnel and hospital staff that has resulted in a team of trained clinicians who are available to give grand rounds at metro-area hospitals.
- ◆ The MDPH Division of Epidemiology and Immunization already has bi-weekly training for staff on various infectious disease topics. This provides an opportunity to keep updated on new information.

**Proposed Activities:**

- ◆ We will expand the speaker's bureau (focus on infectious disease and emergency medicine providers, but to include non-emergency providers) in collaboration with the MA Infectious Disease Society, the MA Hospital Association, the MA Medical Society, and the Schools of Public Health, and include speakers on other infectious diseases. Timely reporting and specified pathogens or unusual clusters of disease will be emphasized.
- ◆ We would like to enhance our training by cross training with other agencies, such as MEMA, increase our number of tabletop exercises involving numerous infectious disease agents, and to increase our general terrorism trainings to include those beyond the infectious disease emergencies, including the mental health and substance abuse impact.
- ◆ Members of the advisory committee will give input on appropriate program content and curricula.
- ◆ Supplies, including a color copier, will allow us to develop more training materials in-house. Improvement and renovation of conference space at the State Laboratory Institute and regional offices is needed.
- ◆ With funds to cover supporting costs we can increase the number of people that will be able to attend trainings, including increasing the types of courses that are available to staff.

**Timeline and Evaluation:**

- ◆ By 09/01/02, a preliminary speakers bureau will be developed.
- ◆ By 12/30/02, the speakers bureau will be expanded to cover all regions of the state, incorporating new staff hired, regional projects funded, and instructor training developed during the fall of 2002.
- ◆ Increased training will be made available to MDPH staff over the 18-month period.